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Sheet 1 of 2 Attorney Docket Number 003771.P001D

## U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.*	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
	us-	4,631,352		12/23/1986	Daud et al	
	us-	4,675,711		6/23/1987	Harder et al	
	us-	4,751,563		6/14/1988	Labowitz et al	
	us-	4,837,604		6/6/1989	Faris	
	us-	4,935,804		6/19/1990	Ito et al	
	us-	5,019,530		5/28/1991	Kleinsasser et al.	
	us-	5,258,625		11/2/1993	Kamohara et al.	
	us-	5,291,274		3/1/1994	Tamura	
	us-	5,401,980		3/28/1995	Fang et al.	
	us-	5,422,496		6/6/1995	Kamohara et al	

## FOREIGN PATENT DOCUMENTS

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		Country Code <sup>4</sup> Number <sup>5</sup> Kind Code <sup>6</sup> (if known)				

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INFORMATION DISCLOSURE				Application Number	Not Yet Assigned
STATEMENT BY APPLICANT				Filing Date	Herewith
(use as many sheets as necessary)				First Named Inventor	Daniel E. Grupp
Sheet	2	003771 P001D	2	Art Unit	Not Yet Assigned
				Examiner Name	Not Yet Assigned
				Attorney Docket Number	003771 P001D

## NON PATENT LITERATURE DOCUMENTS

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		P Hadley, "Single-Electron Tunneling Devices", <u>TMR Programme Certosa di Pontignano (SI)</u> , 7/20, September 1997, 1-15	
		Haroon Ahmed, Kazuo Nakazato, "Single-Electron Devices", <u>Microelectronic Engineering</u> 32, (1996), pp 297-315	
		John Randall et al., "Potential Nanoelectronic Integrated Circuit Technologies". <u>Microelectronic Engineering</u> 32, (1996) pp 15-30	
		Bogdan Majkusiak, "Experimental and Theoretical Study of the Current-Voltage Characteristics of the MISIM Tunnel Transistor", <u>IEEE Transactions on Electron Devices</u> vol 45 No. 9 (Sep. 1998) pp. 1903-1911	
		C A Mead, "Operation of Tunnel-Emission Devices", <u>Journal of Applied Physics</u> , Vo 32, No 4 (Apr. 1959)	

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		Number-Kind Code <sup>2</sup> (if known)				
		us-	5,475,341	12/12/1995	Reed	
		us-	5,589,692	12/31/1996	Reed	
		us-	5,604,154	2/18/1997	Takahashi et al	
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		us-	5,665,979	9/9/1997	Takahashi et al	
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		us-	5,705,827	1/6/1998	Baba et al	
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(use as many sheets as necessary)				First Named Inventor	Daniel E Grupp
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		Y. Takahashi et al., "Fabrication Technique for Si Single-Electron Transistor Operating at Room Temperature", IEEE Electronics Letters Online No. 19950063 vol. 31 No. 2, (Jan 19, 1995) pp. 136-137	
		Kazuo Nakazato and Haroon Ahmed, "Enhancement of Coulomb blockade in Semiconductor Tunnel Junctions", Appl. Phys. Lett., (Mar. 21, 1995) pp. 3170-3172	
		R. H. Davis and H.H. Hosack, "Double Barrier in Thin-Film Triodes", Journal of Applied Physics, vol 34, No 4 (Part 1), (4/63) pp. 864-866	
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		E. Tosatti and R. Martonak, "Rotational Melting in Displacive Quantum Paraelectrics", Solid State Communications, vol. 92, Nos. 1-2 (1984) pp. 167-180	

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		us- 5,731,598	3/24/1998	Kado et al.	
		us- 5,754,077	5/19/1998	Onata et al.	
		us- 5,834,793	11/10/1998	Shibata	
		us- 3,116,427	12/13/1963	Gkaever	
		us-			

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		Hiroyuki Sakaki, "Quantum Microstructure Devices", <u>Solid State Communication</u> , vol 92, Nos. 1-2, (1994) pp 119-127	
		M A Reed et al , "Realization of a Three-Terminal Resonant Tunneling Device The Bipolar Quantum Resonant Tunneling Transistor" <u>App Phys Lett</u> (11) (Mar. 12, 1989) pp. 1034-1036	
		R J Schoelkopf et al , "The RF-SET. A Fast and Ultra-Sensitive Electrometer". Submitted to <u>Science</u> , (12/11/97) pp. 1-6	
		Federico Capaso et al., "Multiple Negative Transconductors and Differential Conductance in a Bipolar Transistor by Sequential Quenching of Resonant Tunneling" <u>App Phys Lett</u> 53 (12) (19 Sep 1988) pp 1056-1058	
		J.L. Huber et al., "An RTD/Transistor Switching Block and its Possible Application in Binary and Ternary Adders", <u>IEEE Transaction of Electron Devices</u> , vol 44 No 12 (12/97) pp 2149-2153	

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Inventor	Daniel E. Grupp
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		Robert F. Service, "Microelectronics" "IBM Puts Fast Chips on a New Footing". <u>Science</u> , vol. 281, (Aug. 14, 1998) pp. 893-894	
		David Berman et al, "Single-Electron Transistor Research", <a href="http://nanoweb.mit.edu/annual-report/14">http://nanoweb.mit.edu/annual-report/14</a> , (downloaded 10/7/98), pp. 1-4	
		Mikko Paalanen, "Nanophysics-A New Frontier of Science", <a href="http://www.edita.fi/lehdet/polysteekki/297/nanop.html">http://www.edita.fi/lehdet/polysteekki/297/nanop.html</a> , (downloaded 10/7/98) pp 1-5	
		Steven P Beaumont, "III-V Nanoelectronics". <u>Elsevier Science B V</u> <u>Microelectronic Engineering</u> 32, (1996) pp. 283-295	
		P.K. Vasudev and P M Seltzoff, "Si-ULSI with a Scaled-Down Future". <u>IEEE Circuits &amp; Devices</u> , (1998), pp. 19-29	

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Examiner Initials*	Cite No <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>3</sup>
		Country Code <sup>4</sup> Number-Kind Code <sup>5</sup> (if known)				

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Substitute for Form 1449/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(use as many sheets as necessary)</i>				Complete if Known	
Sheet	2	003771.P001D	2	Application Number	Not Yet Assigned
				Filing Date	Herewith
				First Named Inventor:	Daniel E. Grupp
				Art Unit	Not Yet Assigned
				Examiner Name	Not Yet Assigned
				Attorney Docket Number	003771.P001D

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
		S J Wind et al., "Scaling Silicon MOS Device to Their Limits", <u>Elsevier Microelectronic Engineering</u> 32, (1996) pp. 271-282	
		Naoki Yokoyama et al., "A New Functional Resonant-Tunneling Hot Electron Transistor (RHET)", <u>Japanese Journal of Applied Physics</u> , vol. 24 No. 11 (11/85) pp. 1853-1 854	
		Victor Ryzhii et al., "Resonant-Tunneling Bipolar Transistors with a Quantum-Well Base", <u>Japanese Journal of Applied Physics</u> , vol. 35 No. 10 (10/96) pp. 5280-5283	
		Serge Luryi and Federico Capasso, "Resonant Tunneling of Two-Dimensional Electrons Through a Quantum Wire A Negative Transconductors Device" <u>Appl Phys Lett</u> 47 (12) (Dec. 15, 1985) pp. 1347-1349	
		J R Schreffer, "Symmetry of the Order Parameter in High Temperature Superconductors", <u>Solid State Communications</u> , vol. 92, Nos 1-2 (1994) pp. 129-139	

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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 2 Attorney Docket Number 003771 P001D

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		Federico Capasso and Richard A. Kiehl, "Resonant Tunneling Transistor with Quantum Well Base and High-Energy Injection A New Negative Differential Resistance Device" <i>J Appl Phys</i> 58 (3) (Aug 1 1985) pp. 1368-1367	
		A C Seabaugh et al., "Resonant Transmission in the Base/Collector Junction of a Bipolar Quantum-Well Resonant-Tunneling Transistor" <i>App Phys Lett</i> 59 (26) (23 Dec 1991) pp 3413-3415	
		Ming C Wu et al., "Quantum-Switched Heterojunction Bistable Bipolar Transistor by Chemical Beam Epitaxy", <i>Appl. Phys. Lett.</i> 57 (2) (Jul. 9, 1990) pp. 150-152	
		Alan C Seabaugh et al., "Pseudomorphic Bipolar Quantum Resonant-Tunneling Transistor", <i>IEEE Transactions on Electron Devices</i> , vol. 36, No. 10 (10/89) pp. 2327-2334	
		D. Ali and H. Ahmed, "Coulomb Blockade in a Silicon Tunnel Junction Device", <i>Appl. Phys. Lett.</i> 64 (16), (18 Apr 1994), pp. 2119-2120	

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